NAME: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**What is an Earthquake?**

**Part One – (LAB)**

1. What has to happen in order for an earthquake to occur?
2. What is the average number of quakes that happen every day? Every year?
3. How often do severe earthquakes occur that cause widespread destruction?
4. ***Where*** do most earthquakes occur?
5. Where is the largest quake belt located in the world? Which states are impacted?
6. Where is the location of another earthquake belt?
7. What is “plate tectonics”?
8. How long is the San Andreas Fault?
9. Select one of the four faults shown in step 4 of the animation and write a summary of how it moves the earth’s crust.
10. What is the difference between an EPICENTER and a HYPOCENTER?
11. What is a “P” wave?
12. What is the name of the instrument used to measure the strength of the earthquake waves?
13. Use the “LOCATE AN EARTHQUAKE” activity and write down what method the scientists use to find where the earthquake occurred. Also write down the city in which the earthquake occurred.
14. Finally, run the “TRIGGER AND EARTHQUAKE” and write down the ground type that causes the most severe quake as well as the magnitude that causes the most damage to the “building.”

**Part Two – (MAP)**

1. In what year did an earthquake strike Charleston, SC?
2. What is the name of the city in the Midwest that had an earthquake? How long ago did this occur?
3. In which years were there major earthquakes in California?
4. In which year did they record the first earthquake on record?
5. Which part of Mexico has had many quakes?

**Part Three – (Case Studies)**

Read each of the case studies and select the one that you think was the WORST (as far as deaths and damages). Write a brief summary of this earthquake providing its location, date of occurrence, strength, number of deaths and injuries and the percentage of damage. Also describe some of the photos you viewed from that earthquake.